BOOK REVIEW

Comparative Analysis of Telecommunications Regulation: Pitfalls and Opportunities

Controlling Market Power in Telecommunications: Antitrust vs. Sector-specific Regulation, Damien Geradin & Michel Kerf, Oxford: Oxford University Press, 2003, 401 pages.

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I. INTRODUCTION 270
II. CONTROLLING MARKET POWER IN TELECOMMUNICATIONS.......... 271
  A. *Criteria for Evaluating Telecommunications Regulatory Models* 271
  B. *Description of Telecommunications Regulatory Models*.......... 272
    1. United States.......... 273
    2. New Zealand.......... 276
    3. United Kingdom 278
    4. Chile.......... 279
    5. Australia.......... 280
  C. *Comparative Analysis*.......... 281
III. LESSONS ABOUT THE PITFALLS AND OPPORTUNITIES OF COMPARATIVE ANALYSIS OF TELECOMMUNICATIONS REGULATION 282
IV. CONCLUSION.......... 285

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I. INTRODUCTION

In *Controlling Market Power in Telecommunications: Antitrust vs. Sector-specific Regulation* ("*Controlling Market Power*"), Damien Geradin and Michel Kerf undertake the ambitious task of comprehensively reviewing and analyzing the telecommunications regulatory structure of five nations that have achieved some success in promoting competition in telecommunications markets. The purpose of this undertaking is to evaluate the use of telecommunications sector-specific regulation versus more general, economy-wide antitrust regulation to accomplish specific goals related to promoting competition and efficiency in the provision of telecommunications services.

Controlling Market Power is a slow read, densely packed with information about a broad range of telecommunications regulations in the five countries analyzed. The discussion ranges from interconnection obligations to retail and wholesale price regulation to spectrum auction rules to universal service programs. In the course of this wide-ranging analysis, the authors make a number of useful observations and recommendations. But their overarching conclusions, concerning the ideal division of telecommunications regulation between sector-specific rules and institutions and antitrust-based rules and institutions, are simply too broad to be of much use to policymakers or practitioners in countries that already have well-established telecommunications regulatory models.

Despite its limitations, *Controlling Market Power* offers an important lesson. Understanding the contributions and limitations of the comparative analysis contained in the book helps to clarify the circumstances in which comparative analysis of telecommunications regulations can serve as a useful tool for the telecommunications policymaker or practitioner. That is, where the circumstances and objectives of the countries are sufficiently comparable, and the issue being analyzed is sufficiently narrow, much can be learned by examining the experience of other countries that have already undertaken regulatory activity designed to promote the relevant policy objectives.[1] This type of analysis often takes place as other countries look to U.S. regulatory activity, but there also are a number of circumstances in which U.S. policymakers and practitioners can benefit from analyzing regulatory activity that has taken or is taking place in other countries.

Part II of this review describes the comparative analysis undertaken in *Controlling Market Power*. To convey the scope and substance of the analysis, this review summarizes (1) the criteria upon which Geradin and

1. In performing such a comparative analysis, it may be useful to keep in mind the distinction identified in *Controlling Market Power* between approaches that rely on sector-specific regulation as opposed to antitrust-based regulations that apply across the economy as a whole.

Kerf evaluate the various regulatory models they examine, (2) the regulatory regimes analyzed and evaluated, and (3) the conclusions the book derives from the comparative analysis. Part III discusses the contributions to be made by—and the pitfalls encountered in—undertaking the type of broad comparative analysis contained in *Controlling Market Power*. Part III also offers a few suggestions about the circumstances in which a comparative evaluation of different telecommunications regulatory approaches can be most useful.

II. CONTROLLING MARKET POWER IN TELECOMMUNICATIONS

Controlling Market Power undertakes an ambitious and comprehensive comparative analysis of five national telecommunications regulatory regimes, evaluating the regimes in terms of their success in meeting a list of policy criteria identified by the authors. Based on their analysis, the authors make some specific regulatory recommendations and reach a few broad conclusions about the effects of regulating telecommunications through sector-specific versus antitrust-based regulations and institutions. This Part summarizes the evaluative criteria, the regulatory regimes analyzed, and the comparative analysis.

A. Criteria for Evaluating Telecommunications Regulatory Models

Controlling Market Power identifies seven criteria that serve as the basis for evaluating the efficiency and efficacy of the various regulatory models examined in the book. Although Geradin and Kerf acknowledge that the list is not exhaustive, they assert that the identified criteria represent "many of the most important features which regulatory models in telecommunications should present."[2] The criteria are:

1. *Providing incentives to meet users' demands for efficient, reasonably priced telecommunications services*: Geradin and Kerf—and the regulators in the countries they examine—see this as the overarching goal of telecommunications regulation. Means for accomplishing this goal include generating competition *in* the market, requiring providers to compete *for* the market (such as through auctions), and directly regulating prices and quality.

2. *Specificity versus coherence*: Telecommunications regulation should strike an appropriate balance between addressing the specific characteristics of the telecommunications industry while ensuring sufficient coherence of the national economic regulatory framework as a whole.

2. DAMIEN GERADIN & MICHEL KERF, CONTROLLING MARKET POWER IN TELECOMMUNICATIONS: ANTITRUST VS SECTOR-SPECIFIC REGULATION 19 (2003) [hereinafter CONTROLLING MARKET POWER].

3. *Flexibility versus certainty*: Regulations and regulatory institutions should have sufficient flexibility to adapt to changes in circumstances while providing enough certainty to facilitate investment in telecommunications services and providers.

4. *Competent, impartial regulation*: Regulators should be competent to address and understand the issues. The system should be designed to enable the regulators to resist "regulatory capture" by the regulated entities or industries.

5. *Regulatory accountability and stakeholder participation*: Regulators must be accountable, through means such as publication and appellate review of reasoned decisions. Regulatory procedures must allow interested parties to present their views before final decisions are made.

6. *Benefits of regulation should outweigh their potential costs*: Costs include those borne by taxpayers, industry, and the economy as a whole.

7. *Efficient allocation of regulatory resources*: Regulatory institutions should perform their functions effectively. The system should ensure that regulatory decisions across institutions are consistent.

The book then summarizes the types of economic regulatory issues the authors will address as they evaluate the various countries' telecommunications regulatory regimes. The issues include regulation of retail prices and interconnection prices, approaches used to promote competition (such as facilities-based competition, resale, and unbundled access to elements of the local network), methods for allocating scarce resources like spectrum (including various auction methodologies), universal service, vertical separation and integration, convergence within communications and between the communications and information technology industries, and international benchmarking of telecommunications prices.

B. Description of Telecommunications Regulatory Models

The bulk of *Controlling Market Power* is devoted to describing and analyzing the regulatory regimes and institutions of the five countries evaluated: the United States, New Zealand, the United Kingdom, Chile, and Australia. The authors chose these countries both because of the relative success the countries have achieved in bringing competition to their telecommunications markets and to show a continuum of regulatory approaches ranging from very telecommunications sector-specific to very antitrust-focused.

The organization of the comparative analysis is effective. The authors begin with the two most extreme examples, the United States and New Zealand, and then describe the more intermediate approaches taken in the other three countries. Australia, discussed last, fits particularly well into the

comparative analysis because Australian policymakers, who were somewhat late to initiate efforts to promote telecommunications competition, conducted a comparative investigation of other countries' experiences before adopting a regulatory framework. The analysis of the various regulatory regimes is thorough and for the most part accurate, except that it unavoidably fails to reflect the (in some cases substantial) developments in telecommunications regulation that occurred between the writing and publication of the book.

1. United States

The comparative discussion begins with the United States, which has the most sector-specific regulatory regime of the countries analyzed. Regulatory efforts to minimize and control market power in U.S. telecommunications markets center on the detailed 1996 Telecommunications Act ("the 1996 Act"),[3] which is part of the Communications Act of 1934, as amended ("the Act").[4] The Act and its implementing regulations are administered by the Federal Communications Commission ("FCC"), a powerful, highly competent, independent regulatory body. The book describes the U.S. regime's local exchange network unbundling obligations (and the related Total Elemental Long-Run Incremental Cost ("TELRIC") pricing methodology); universal service and access charge reform efforts; the 1996 Act provisions allowing the Regional Bell Operating Companies ("RBOCs") to enter the long-distance market only upon a showing that their own local markets are open to competition; spectrum auction procedures; and proposals, being considered primarily by state regulatory bodies, to require structural separation (actual or functional) of the RBOCs into wholesale and retail entities. The book also observes that antitrust laws are fully applicable to telecommunications operators and that these laws often are enforced in the context of mergers of telecommunications providers.[5]

Controlling Market Power then applies its evaluative criteria to the U.S. regulatory regime, making the following significant observations:

Competition and other efficiency incentives: Although Geradin and Kerf generally favor measures that more directly encourage facilities-based competition, they acknowledge the continued dominance of the U.S. local

3. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at scattered sections of 47 U.S.C.).

4. Communications Act of 1934, ch. 652, 48 Stat. 1064 (codified as amended at scattered sections of 47 U.S.C.).

5. But see Trinko v. Bell Atlantic Corp., 305 F.3d 89 (2d Cir., 2002), *cert. granted sub nom.* Verizon Comm. Corp. v. Trinko, 123 S. Ct. 1480 (2003), *argued* Oct. 14, 2003, a case in which the RBOCs are seeking to establish that antitrust laws *cannot* be used where the only violation supporting the antitrust claim is of the FCC's rules.

exchange market by incumbent local exchange companies ("ILECs") and recognize that "unbundling of the local loop may thus be a valid strategy to stimulate competition and innovation in at least some cases."[6] On the other hand, they criticize the TELRIC pricing methodology adopted by the FCC to guide the pricing of unbundled network elements ("UNEs"), arguing that TELRIC pricing may preclude ILECs from recouping their investments and "is contrary to the language of the 1996 Act and thus illegal as has been recently confirmed by a judgment of the Court of Appeals of the Eighth Circuit."[7] However, the Eighth Circuit decision was subsequently overruled by the Supreme Court in *Verizon Communications v. FCC*, which found that it was within the FCC's discretion to choose the TELRIC methodology to promote competition as mandated by the 1996 Act.[8]

Geradin and Kerf also criticize the 1996 Act's conditional grant of long distance authority to RBOCs who can demonstrate that their local markets are open to competition. Written when only a few Section 271 applications had been approved, the book argues that RBOCs have been unenthusiastic about entering the long distance market (where revenues have been shrinking) and that long distance providers have had an incentive to stay out of the local exchange market to hinder the RBOCs' efforts to make the competitive showing necessary to gain the right to compete in the long distance providers' core business.[9] To better promote local competition, the book suggests that full structural separation of the RBOCs' wholesale and retail businesses would reduce both the ability and incentives of monopoly local providers to exclude competitors from access to their local facilities. However, the authors acknowledge that this

6. CONTROLLING MARKET POWER, *supra* note 2, at 100.

7. *Id*. at 100 (citing Iowa Utils. Bd. v. FCC, 219 F.3d 744 (8th Cir. 2000), *overruled in relevant part sub nom.* Verizon Comm., Inc. v. FCC, 535 U.S. 467 (2002)).

8. 535 U.S. 467, 508 (2002). The authors' reliance on a subsequently overruled court case points out a significant (though unavoidable) weakness of *Controlling Market Power*—or any book-length analysis of current regulatory activity in the telecommunications arena. The constantly evolving regulation of telecommunications, combined with inevitable delays between the writing and publication of a book, make it difficult to discuss current telecommunications regulation in that medium. For example, *Controlling Market Power* was published in 2003, but the most recent developments cited in the book occur in the 2000-2001 time frame. A number of significant regulatory developments occurred during the intervening period.

9. CONTROLLING MARKET POWER, *supra* note 2, at 101 (footnotes omitted). Like the comment concerning the legality of TELRIC pricing, this comment is woefully outdated, as the RBOCs now have Section 271 authority in all 48 continental states and the District of Columbia. *See* FCC, "News Release: Federal Communications Commission Authorizes Qwest to Provide Long Distance Service in Arizona; Bell Operating Companies Long Distance Application Process Concludes; Entire Country Authorized for 'All Distance' Service," Dec. 3, 2003. Moreover, long distance companies like AT&T and MCI are among the more active competitive local exchange carriers ("CLECs").

approach would be expensive to implement and would be hindered by protracted legal challenges, "a factor that cannot be overlooked in the particularly litigious [U.S.] system."[10]

The book also comments on the competitive status of the wireless and Internet services markets. Geradin and Kerf note that the U.S. wireless telecommunications market is increasingly competitive but characterized by one of the lower penetration rates among industrialized countries, due in large part to the "called party pays" pricing of wireless services. In the Internet services market, high penetration and usage rates driven by flat-rate local access charges raise concerns about congestion in the local network. Geradin and Kerf believe this congestion can best be remedied by encouraging adoption of broadband alternatives to dial-up Internet access.

With respect to universal service, the authors approve of recent efforts to move toward explicit universal service support. However, they assert that the lack of competition for universal service support may inflate U.S. universal service costs, which are high by international standards.

Specificity versus coherence: *Controlling Market Power* contends that the highly specific U.S. regulatory regime has some benefits but has resulted in rigid regulatory distinctions between communications technologies that are "poorly adapted to a context of convergence. . . . Antitrust authorities or infrastructure-wide regulatory agencies, based on the model of the state utility commissions, would . . . be better positioned to regulate converging industries."[11]

Benefits of regulation should outweigh their potential costs: Significant regulatory costs are cited as a clear drawback of the U.S. regulatory model. These costs include: (1) administrative resources expended by both the FCC and state regulatory commissions; (2) carriers' investment of internal and external legal resources to ensure compliance with complex regulations; (3) costs created by regulatory inefficiencies, including costs of judicial proceedings to resolve disputes regarding the allocation of regulatory responsibilities between the FCC and state regulators and the costs to the economy at large of delaying regulatory reform while such disputes are resolved; and (4) costs of regulatory mistakes, which have a tendency to increase with the number and complexity of the rules.[12]

10. CONTROLLING MARKET POWER, *supra* note 2, at 110.

11. *Id*. at 111.

12. The authors contend that Section 271 may have been one of these mistakes, perhaps delaying the arrival of competition in the local exchange market by discouraging long distance providers from playing a role in bringing competition to that market. As noted *supra* note 9, this contention is based on an outdated assessment of the status of the RBOCs' Section 271 applications.

Efficient allocation of regulatory resources: The authors argue that uncertainties and peculiarities in the allocation of responsibilities between the FCC and the Department of Justice ("DOJ") in the Section 271 and merger review processes generate harmful inefficiencies. The authors believe that efficiency could be improved with more Congressional guidance concerning the allocation of responsibility between the FCC and state regulators, and by assigning primary responsibility for Section 271 approval and merger review to the DOJ, with input from the FCC.[13]

Beyond applying their seven criteria for effective telecommunications regulation, Geradin and Kerf do not make any overarching recommendations concerning the U.S. telecommunications regulatory model. General conclusions are saved for the final chapters of the book.

Controlling Market Power contains a similarly comprehensive review and analysis of each of the other four countries the book examines. The analysis of the U.S. regulatory model is described in some detail to provide a sense of the scope and detail of the analyses. The analyses of the other countries' regulatory regimes will be summarized more succinctly.

2. New Zealand

New Zealand represents the opposite end of the regulatory spectrum from the detailed, sector-specific approach taken in the United States. Initial efforts to liberalize the New Zealand telecommunications market relied almost exclusively on general antitrust rules administered by the antitrust authority. These rules include prohibitions on: (1) contracts or arrangements that have the purpose or effect, or are likely to have the effect, of substantially lessening competition in a market; (2) arrangements to fix prices; (3) any use of a dominant position in a market to restrict entry into, prevent or deter competition in, or eliminate any person from the dominated market or any other market; and (4) the acquisition of assets or stock that would likely give an entity a dominant position or strengthen an entity's dominant position in a market. The Commerce Commission is responsible for monitoring the application of antitrust regulations. It may impose price controls in the interest of users, consumers, or retailers, and it may authorize otherwise prohibited arrangements or transactions where the benefits appear to exceed potential disadvantages.

13. *Id*. at 116-17. The authors acknowledge that the FCC is probably best qualified to determine an ILEC's compliance with its Section 251 interconnection obligations, but they also argue that "it is a competition authority such as the [DOJ], with experience in assessing the degree of competitiveness of different markets across the economy, which should be entrusted with the task of determining whether the local [communications] market is sufficiently open to competition." *Id.* at 116. Similarly, they contend that "it would be preferable to concentrate merger review in the hands of the [DOJ] which has the advantage of reviewing mergers across different fields of activity." *Id.* at 117.

As of the early 1990s, only a few telecommunications-sector-specific rules were in place in New Zealand. These included: (1) universal service, financial disclosure, and interconnection obligations applicable to Telecom, the newly privatized (but still partially state-owned) national telecommunications service provider, and (2) a 1989 law authorizing the Minister of Economic Development to grant (via auction) exclusive and technology-neutral management rights to spectrum managers authorizing them to manage (and issue licenses for the use of) nationwide spectrum bands. Spectrum management rights and licenses are transferable, subject only to the prohibition against the acquisition of assets that will create or strengthen an entity's dominant position in any market.

By late 2000, the Minister of Communications (within the Ministry of Economic Development) had determined that New Zealand's reliance on general antitrust law to regulate telecommunications had been inadequate in some respects. Soon the Telecommunications Act of 2001, containing a number of new sector-specific rules, was adopted by the legislature.[14] The new rules include technical interconnection and pricing obligations applicable to certain services (e.g., interconnection with fixed networks and resale of retail services). Pricing is set based on international benchmarking, subject to more precise application of the specified pricing methodology on appeal.[15] The new rules are administered primarily by a new Telecommunications Commissioner of the Commerce Commission, sometimes with input from other commissioners.

Applying their evaluative criteria, Geradin and Kerf make the following significant observations about the New Zealand regulatory model: (1) although the application of general antitrust law has done much to promote competition in telecommunications in New Zealand, interconnection and number portability issues proved hard to resolve in the absence of sector-specific requirements; (2) spectrum resale has not taken place as expected, but this may be due to the small size of the New Zealand market as opposed to problems with the design of the spectrum management system; (3) relying on antitrust regulation (which places significant decision-making power in the courts) can result in too much uncertainty as contentious issues are resolved through sometimes long and difficult judicial processes[16]; and (4) an absence of sector-specific rules can result in substantial regulatory costs in the form of legal costs incurred in

14. Telecommunications Act, 2001 (N.Z.)

15. An international benchmarking exercise looks to similar prices in comparable countries applying the specified methodology to similar networks.

16. Geradin and Kerf appear to assume, not necessarily correctly, that the time and costs involved in resolving contentious issues through the courts will exceed the time and costs involved in addressing such issues through the legislative and/or regulatory process.

resolving disputes, economic costs resulting from the delay in resolving contentious issues, and regulatory mistakes resulting from reliance on courts lacking specialized expertise.

3. United Kingdom

Detailed sector-specific rules, set forth as conditions to each telecommunications carrier's Public Telecommunications Operator ("PTO") license, govern the provision of telecommunications services in the United Kingdom. The conditions of the standard PTO include a requirement to provide number portability, a financial disclosure obligation applicable to companies that have special rights to provide services other than telecommunications, and special conditions (including interconnection obligations) applicable to carriers determined by the Director General of Telecommunications[17] ("DGT") to have significant market power. The incumbent British Telecom has a special license with additional conditions, including accounting separation and local loop unbundling requirements (imposed recently in light of disappointing results in achieving facilities-based competition) and a prohibition on unfair cross-subsidies. Licenses applicable to wireless services, granted by the Secretary of State for Trade and Industry and administered by the Radiocommunications Agency, include technical standards for equipment and interference levels. Since 1998, fees for spectrum use can be set by regulation or by auction. As of 2001, the Radiocommunications Agency was developing proposals to introduce spectrum trading.[18]

Antitrust law[19] in the U.K. prohibits agreements or associations that have the object or effect of preventing or distorting competition in a U.K. market or of potentially affecting trade within the U.K. U.K. antitrust laws also prohibit conduct that amounts to abuse of a dominant position and may affect trade within the U.K. The antitrust laws may be enforced by the Director General of Fair Trading, by the DGT, or by private action in court. OFTEL has recently expressed an intention to relax some regulatory requirements and to rely more extensively on its general powers to enforce

17. The DGT is the administrator of the Office of Telecommunications ("OFTEL"), the United Kingdom's sector-specific regulatory agency.

18. Efforts to introduce spectrum trading in the U.K. have progressed since 2001. For example, the Communications Act of 2003 expressly authorizes the promulgation of regulations allowing the transfer of spectrum licenses and access rights. *See* Communications Act, 2003, c. 21, § 168 (Eng.).

19. Many European, Australian and other policymakers and regulators outside the U.S. use the term "competition law" to refer to laws and regulations described as "antitrust" in the U.S. However, Geradin and Kerf use the term "antitrust law" throughout their book, apparently for the sake of consistency. This review will do the same.

the antitrust laws in order to regulate anticompetitive conduct in telecommunications.

Geradin and Kerf make three significant observations about the U.K. regulatory system. First, they note that although OFTEL initially focused on promoting full facilities-based competition, those efforts were disappointing. Accordingly, OFTEL has recently imposed requirements (such as local loop unbundling) designed to accommodate non-facilities-based competition as well. Second, in an age of convergence, inconsistent decisions in the regulation of different network industries by different institutions can lead to distortions in both capital and product markets. The authors expected that a then-pending proposal to create a single regulator for the entire communications industry (the Office of Communications or "OFCOM") would help to promote greater coherence.[20] Third, it has been difficult to ensure consistency in competition decisions where both the antitrust regulator (the Director General of Fair Trading) and the telecommunications regulator (OFTEL) have authority to enforce the antitrust laws.[21]

4. Chile

Sector-specific telecommunications rules in Chile are administered by the Subsecretaría de Telecomunicaciones ("SUBTEL") within the Ministry of Transport and Telecommunications. Pro-competitive, sector-specific regulations were first adopted in the early 1980s and have evolved over time to include such provisions as: (1) the award of licenses to provide telecommunications services on a nondiscriminatory basis, (2) technical standards and interconnection obligations, (3) price controls (for retail services and interconnection) in insufficiently competitive markets, (4) universal service obligations (phased in over time in areas lacking sufficient infrastructure), (5) mandatory access to the customer's choice of long-distance provider (through pre-selection and on a call-by-call basis), and (6) competitive bidding for subsidized telecommunications deployment projects in rural and low-income urban areas. Antitrust rules, which generally prohibit actions or agreements that seek to hinder free competition in economic activities and specifically prohibit the grant of exclusive rights to perform any economic activity, are also applicable to

20. This proposal has since taken effect. The Office of Communications Act of 2002 established OFCOM, which will assume its full powers and responsibilities at the end of 2003. Office of Communications Act, 2002, c. 11 (Eng.). The Communications Act of 2003 assigned additional responsibilities to OFCOM. Communications Act, 2003, c. 21, Pt. 1 (Eng.).

21. The Communications Act of 2003 resolved many of the problems arising from this concurrent jurisdiction. *See* Communications Act, 2003, c. 21, Pt. 5 (Eng.).

telecommunications providers. The antitrust rules are administered by four separate institutions, some national and some regional.

Geradin and Kerf are impressed with the levels of competition that Chile has accomplished in its long-distance market, due in large part to carrier pre-selection and dial-around access requirements. The mobile market likewise has experienced growing competition, spurred by the grant of multiple licenses in the same territories. Internet usage also has increased significantly in recent years, probably due to price restrictions imposed on the dominant local service provider. Finally, Chile has achieved considerable success in deploying "universal service" (a single operating payphone in previously unserved villages) on a cost-effective basis pursuant to a competitive bidding mechanism. In the competitive bidding procedure, the lowest-bidding carrier is awarded a nonexclusive right to construct the payphones (using the cost-effective technology and project design developed by the carrier) and receives the awarded subsidies after completion of the facilities.

The authors generally support Chile's approach of allowing carriers operating in one segment of the market to operate in other segments of the market through separate subsidiaries and subject to prohibitions on cross-subsidization. They also consider the overall regulatory model, particularly the rule authorizing antitrust authorities to determine when market conditions justify eliminating specific price regulations, to offer a good compromise between coherence and specificity.

5. Australia

Policymakers adopting the current Australian telecommunications regulatory regime were strongly influenced by an independent report on competition policy issues, the 1993 Hilmer Report. The Hilmer Report based many of its recommendations on a comparative analysis of other regulatory regimes, particularly the New Zealand experience.

Under the current regime, general antitrust rules apply to telecommunications carriers. In addition, the antitrust regulator, the Australian Competition and Consumer Commission ("ACCC"), administers a cross-sector access regime requiring access to infrastructure facilities of certain services (pursuant to terms that are agreed upon by the parties or arbitrated by the ACCC) where the Minister of Transport and Communications makes the following determinations: (1) access to the service would promote competition, (2) it would be uneconomical for anyone to develop another facility to provide the service, (3) the facility is of national significance, (4) access to the service can be provided without undue risk to human health and safety, (5) an effective access regime is not

already in place, and (6) access to the service is not contrary to the public interest.

There are additional telecommunications sector-specific rules, but most of these are incorporated into the antitrust legislation and administered and implemented by the ACCC. Certain technical functions are performed by a new regulatory body, the Australian Communications Authority ("ACA"). The ACCC and ACA are required to cooperate in some matters. Like Chile, Australia has introduced some measure of competition for the provision of universal service through a program of competitive bidding for access to a fund earmarked to provide service outside the main cities.

Geradin and Kerf credit Australia with achieving varying levels of success in promoting competition in the mobile market (spurred in part by mobile number portability), the international services market, the dial-up Internet market, and the broadband services market. However, the incumbent Telstra continues to control most of the local and long-distance markets. The authors also express concern about Australia's procedure for mandating access to critical telecommunications facilities. They contend that the processes for declaring services subject to access requirements and for arbitrating appropriate terms of access are cumbersome and slow, and that access prices may be set too low to allow the facilities' owners to recoup their costs. More generally, however, the authors approve strongly of the Australian approach of allocating the main responsibilities for economic regulation of the telecommunications sector to a telecommunications-specific department within a specialized cross-sector regulator.

C. Comparative Analysis

Before stating their general conclusions, Geradin and Kerf discuss a number of more specific telecommunications regulatory issues from a comparative perspective, based on the experiences of the five countries analyzed. For example, they examine the need for local loop unbundling to promote local telephone competition; they evaluate interconnection pricing regimes; and they recommend means for promoting universal service while minimizing costs. More generally, *Controlling Market Power* reaches four broad conclusions about the respective roles that should be played by telecommunications sector-specific rules and institutions on the one hand, and antitrust rules and institutions on the other hand, in regulating telecommunications to control market power and promote competition and efficiency.

First, the authors argue that the adoption of some sector-specific rules is desirable when a country first attempts to open formerly monopolized

telecommunications markets to competition. Desirable rules may include an interconnection regime, local loop unbundling obligations, removal of restrictions on resale, a guarantee of number portability and carrier pre-selection, and the imposition of vertical separation between different activities (such as wholesale and retail activities in the local loop). Sector-specific rules (including price controls) may be necessary before competition takes hold and to address telecommunications sector-specific issues such as universal service and the allocation of scarce resources.

Second, even where sector-specific rules have been adopted, the authors note that antitrust rules also must be applied to telecommunications. Antitrust regulation can be used to review mergers between telecommunications operators, to prohibit collusive practices among competitors, and to prevent anticompetitive cross-subsidies between regulated and nonregulated activities. Antitrust rules also help to fill gaps in sector-specific regulatory regimes.

Third, the authors observe that implementation arrangements, particularly the selection of the institution charged with overseeing telecommunications regulation, are central to the effectiveness of the regulatory regime. Specialized entities are needed to deal with the more complex telecommunications regulatory issues, but economy-wide regulatory bodies also offer some distinct advantages. According to *Controlling Market Power*, the ideal solution may be to locate an individual or entity with telecommunications expertise within the antitrust regulatory body.

Fourth and finally, the authors conclude that there is growing convergence between countries toward the adoption of some of the "best practices" of telecommunications regulation identified in *Controlling Market Power*. However, the authors admit that the degree of convergence possible in telecommunications regulation is limited by the different policy objectives and factual circumstances existent in different countries.

III. LESSONS ABOUT THE PITFALLS AND OPPORTUNITIES OF COMPARATIVE ANALYSIS OF TELECOMMUNICATIONS REGULATION

The scope of the comparative analysis undertaken in *Controlling Market Power* is impressive, and the authors clearly have developed a detailed and nuanced understanding of the markets, institutions and regulatory regimes in the countries they evaluate. Moreover, many of their observations and recommendations concerning specific regulatory issues are insightful and useful. For example, the authors' recommendation (and its underlying rationale) that responsibility for approving telecommunications mergers in the United States be vested in the DOJ (the

antitrust regulator), with input from the FCC (the sector-specific regulator), could prove useful to U.S. lawmakers considering legislation to streamline the review process for mergers in the telecommunications industry.[22] The problem is that these focused and useful recommendations are buried in an overly broad analysis that ends up offering general conclusions of limited practical utility.

Geradin and Kerf themselves acknowledge that their book's broad conclusions will not apply in many circumstances. *Controlling Market Power* concludes with a warning that:

> While many of the best practices identified above may be relevant for different countries and while the arguments which have been mentioned in favour or against specific regulatory choices should be taken into account while determining the appropriate role of sector-specific and economy-wide instruments in different contexts, specific solutions will need to be carefully tailored to specific country circumstances and policy objectives.[23]

Application of *Controlling Market Power*'s broad institutional and structural recommendations is particularly problematic for the policymaker or practitioner of telecommunications law in the United States or other countries with well-developed telecommunications regulatory models.

The greater utility and applicability of Geradin and Kerf's specific recommendations, as opposed to their more general conclusions, offers an important lesson about the use of comparative analysis in the telecommunications regulatory arena: *comparative analysis of telecommunications regulation is most useful if conducted on a focused, issue-specific basis rather than at a comprehensive, industry-wide level*. Where a more narrowly defined issue is being analyzed, the comparative analysis can focus on countries that share similar circumstances (such as market size, regulatory institutions and capabilities, and stage of competitive development) and policy objectives relating to the issue at hand. This approach ensures that only the most useful and relevant information is gathered and examined. Thus, for example, the Chilean experience in promoting universal service may not be particularly relevant to efforts to reform the universal service system in the United States because of the different levels of infrastructure deployment in the two countries (which necessarily inform the countries' primary policy objectives). On the other hand, U.S. regulators might be well-advised to look to the Australian experience in implementing spectrum trading as they attempt to promote the development of a secondary market for spectrum

22. *See id*. at 117.
23. CONTROLLING MARKET POWER, *supra* note 2, at 356.

rights in the United States.[24] Similarly, U.S. policymakers seeking to expand consumer access to broadband services could benefit fromanalyzing the experiences of countries that have made significant progress in deploying broadband Internet access.[25]

A proceeding currently pending before the FCC offers another example of the circumstances in which a comparative investigation of other countries' experience can be helpful. In that proceeding the FCC is considering regulatory measures to promote competition in the market for retail directory assistance services.[26] Throughout the proceeding, U.S. directory assistance providers, such as InfoNXX, Inc. (a U.S. wholesale directory assistance provider that also offers retail directory assistance in the U.K. through its subsidiary, The Number UK Ltd.), have urged the FCC to look to the European experience as it determines appropriate measures to promote competition in the U.S. market for retail directory assistance services.[27] European countries are in many cases several years ahead of the United States in introducing competition into this segment of the telecommunications market. Similar to the New Zealand policymakers discussed in *Controlling Market Power*, some European regulators have taken initial steps, found the results unsatisfactory, and followed up with modifications to the regulatory approach to more effectively accomplish the policy objective of promoting competition in the provision of retail directory assistance services.[28] Under these circumstances, where the policy objectives in the countries being considered are the same and important similarities existed in the structure of the different countries' markets prior to the introduction of competition, a comparative analysis of the European experience could provide valuable information that could help the FCC avoid the kinds of regulatory mistakes that some European regulators made in their early attempts to promote retail directory assistance competition.

24. Although New Zealand also has attempted to implement spectrum trading, the New Zealand experience would be less relevant to the United States because the New Zealand market is so much smaller than the U.S. market.

25. Indeed, members of the FCC staff have already initiated such an inquiry. *See* SHERILLE ISMAIL AND IRENE WU, FCC, BROADBAND INTERNET ACCESS IN OECD COUNTRIES: A COMPARATIVE ANALYSIS (Oct. 2003), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-239660A2.pdf.

26. *See* Provision of Directory Listing Info. Under the Comm. Act of 1934, As Amended, *Notice of Proposed Rulemaking*, 17 F.C.C.R. 1164 (2002).

27. *See, e.g.*, *Ex Parte* Letter of InfoNXX, Inc., CC Docket No. 99-273 (Sept. 25, 2003); *Ex Parte* Letter of InfoNXX, Inc., CC Docket No. 99-273 (May 21, 2003); Comments of Telegate, Inc., CC Docket No. 99-273, at 4-18 (Apr. 1, 2002) [hereinafter *Telegate Comments*].

28. *See, e.g.*, *Telegate Comments* at 16-18.

IV. CONCLUSION

Controlling Market Power makes an important contribution to the field of comparative analysis of telecommunications regulation. The book offers an impressively comprehensive and detailed comparative analysis of five significant telecommunications regulatory models. In some respects, the undertaking of *Controlling Market Power* is overambitious, resulting in a book that is long and complex without, in the end, offering many broadly applicable conclusions of much practical significance. On the other hand, as the above examples show, the book does offer useful regulatory recommendations on specific issues while teaching important lessons about the value of comparative analysis of telecommunications regulation in appropriate circumstances. Particularly in the telecommunications arena, where regulatory issues can be complex and without precedent in other industries, a comparative investigation of similar regulatory initiatives in countries with similar factual circumstances and policy objectives can help regulators to avoid the kind of regulatory mistakes that impose significant costs on industry, consumers, and the economy as a whole.